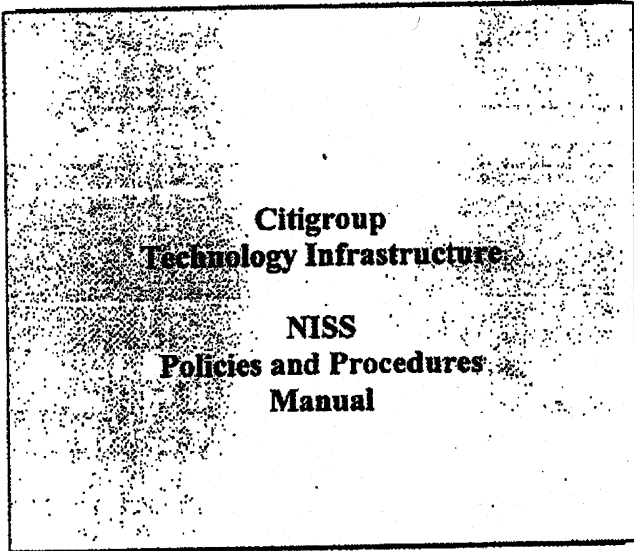


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**Citigroup
Technology Infrastructure
NISS
Policies and Procedures
Manual**

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Infrastructure Integration Policies & Procedures

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1.0 Overview

1.1 Introduction

CTI Network Infrastructure & Site Support group is responsible for the installation and maintenance of network connectivity for the Global Corporate Investment Bank's (GCIB's) network and all related devices. Network Connectivity is defined as any and all interconnects throughout GCIB's cable infrastructure. It includes homeruns, directly connected cabling, point-to-point communications, and circuits required for interoperability with internal and external clients and vendors. The mission of the group is to provide a structured and well-managed cable plant by maintaining infrastructure and inter-connectivity management at the most efficient level. This is achieved in conjunction with WAN Integration and Cable Management, and works toward avoiding impact to the firm caused by connectivity disruptions.

1.2 Scope

The group provides inter-connectivity and daily support of the premise infrastructure, cable plant, and cable management for all businesses within the firm at various sites. The businesses are inclusive, but not limited to, the following groups: Investment Banking, Research, Fixed Income, Capital Markets, Futures, Equities, Municipals, Public Finance, General Services, CITIPLEX, Global Shared Services, E-Commerce, and all Distributed Environments. By directly interfacing with Network Integration we accomplish business objectives and technical specifications as outlined by our business partners, Network Engineering, and IT management.

1.3 Objective

This manual will provide Citigroup employees with an understanding of the Network Infrastructure group's daily functions, express workflow procedures and outline the standards and manner in which Infrastructure employees operate by on a daily basis, in an attempt to provide awareness and the proper channels of communication to clients.

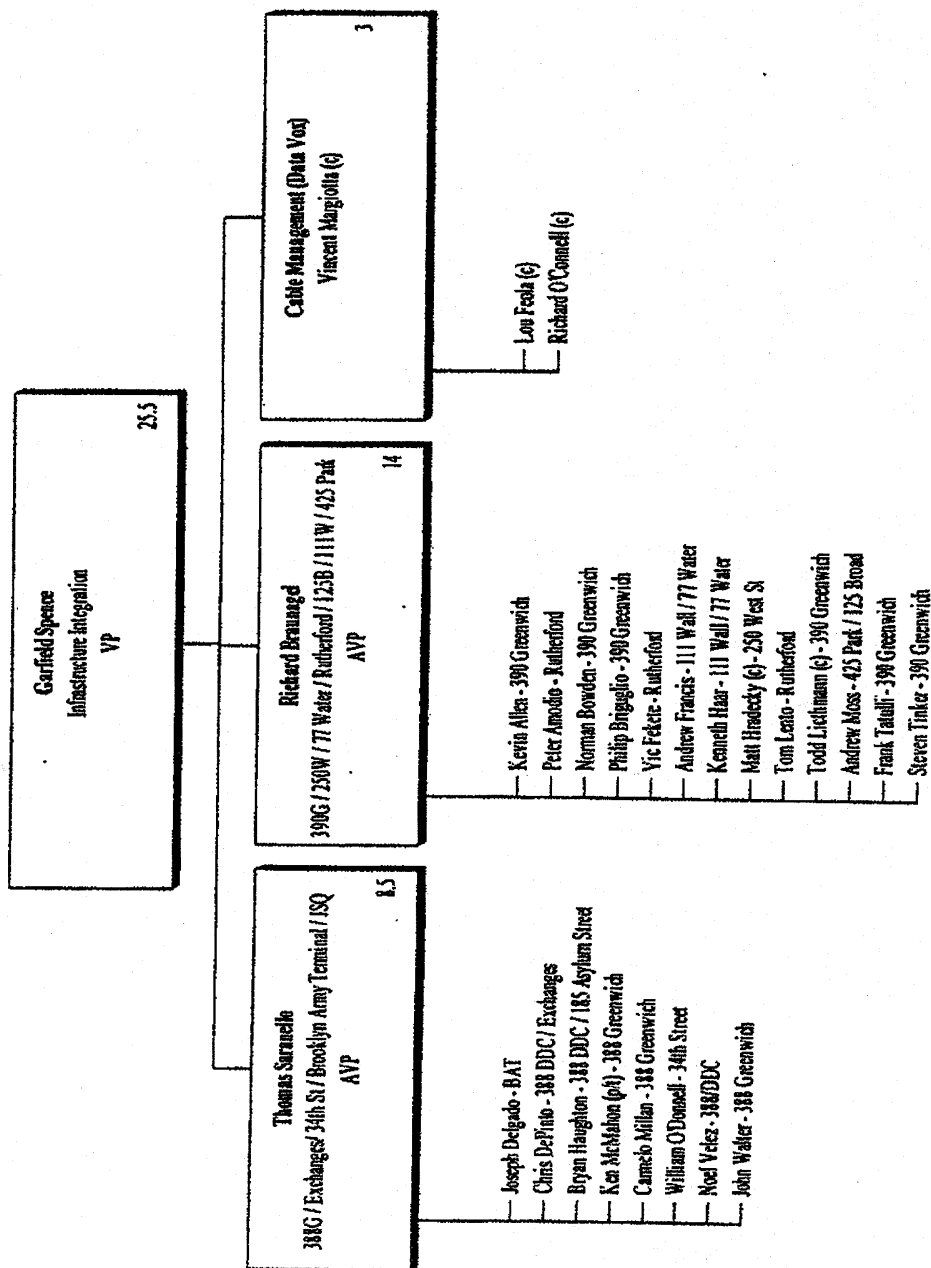
1.4 Updates

This manual is updated quarterly in March, June, September, and December.

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1.5 Organizational Chart (April 2003)

Network Infrastructure Integration Services



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*see appendix for contact information

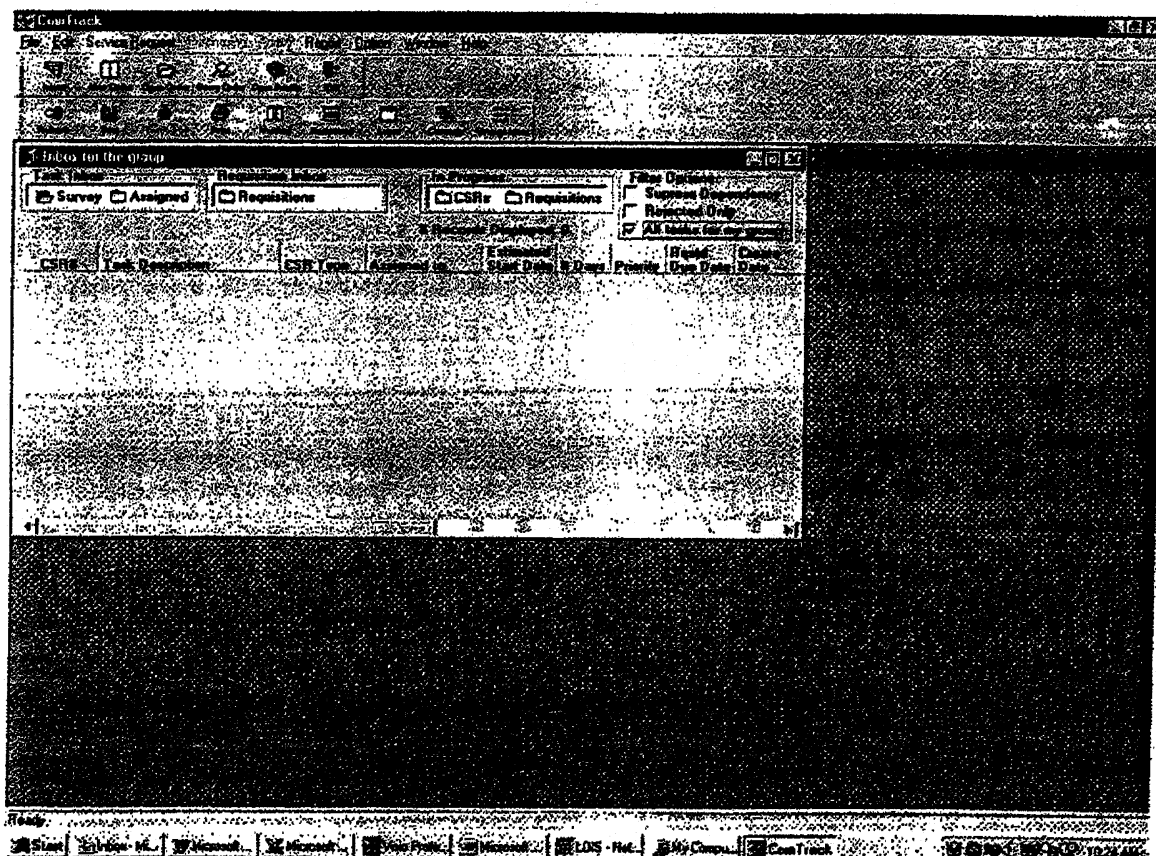
2.0 Workflow Procedures

Process flowcharts can be found following application descriptions.

2.1 ComTrack

ComTrack is used to provide clients with the ability to submit communications service requests. All work that is done by the Infrastructure group is accompanied by a CSR.

Upon logging in, the user is at the survey box for his/her tasks. You can view all tasks for your group by clicking on the filter options at the top right of the screen.



SLA's automatically generate an estimated start and end date based on task, at which point the CSR is moved into the assigned box.

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Below is a listing of tasks, descriptions, and SLA's.

Infrastructure Connectivity

Physical installation of servers, network equipment, SAN connectivity and CATV connectivity.

SLA: 5 days

Network Connectivity

Cabling only, no equipment.

SLA: 3 days.

Port Speed/Duplex

Network switch configuration to accommodate IMAC's.

SLA: 1 day.

Cable Management

Provision of floor plans, end-to-end cable connectivity, traces, and misc. docs.	SLA: 1 day.
--	-------------

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The user can drill down on the details of the request by clicking on the desired request. This request is to add server/network connectivity.

The screenshot displays the ConTrack software interface. The main window shows a list of requests on the left and a detailed view of a selected request on the right. The selected request is for adding server/network connectivity.

CSR#	Task Description	CSR Type	Assigned To	Estimated Date	Actual Date	Act. Date/Prm
218107	Network Connection					
218112	Infrastructure Change					
218112	Port Speed & Config					
218125	Network Connection					
218127	Port Speed & Config					
218133	Port Speed & Config					
218137	Network Connection					
218149	Port Speed & Config					
218150	Network Connection					
218156	Port Speed & Config					

CSR# 218163

CSR#: 218163
Status: Survey
Priority: High
FWP:
CSR Type: ADD/CHANGE
IP Address Affected/Maxed: 500
Blue Alert: Required for special function/meeting: Dave W

Requester:
Name: RYETTE, PASTOR
Phone: (212) 816-9256
Source: ADMINISTRATION
User: INFO SERVICES B
Division: TECH ARCT-ENGINEERING

Team Leader:
Name: BETHEA, LUCINDA D
Phone: (212) 815-5855
Date: 11/04/2001
Requester: 12/03/2001
Submitted: 11/30/2001
Estimated: 12/03/2001
Completed:

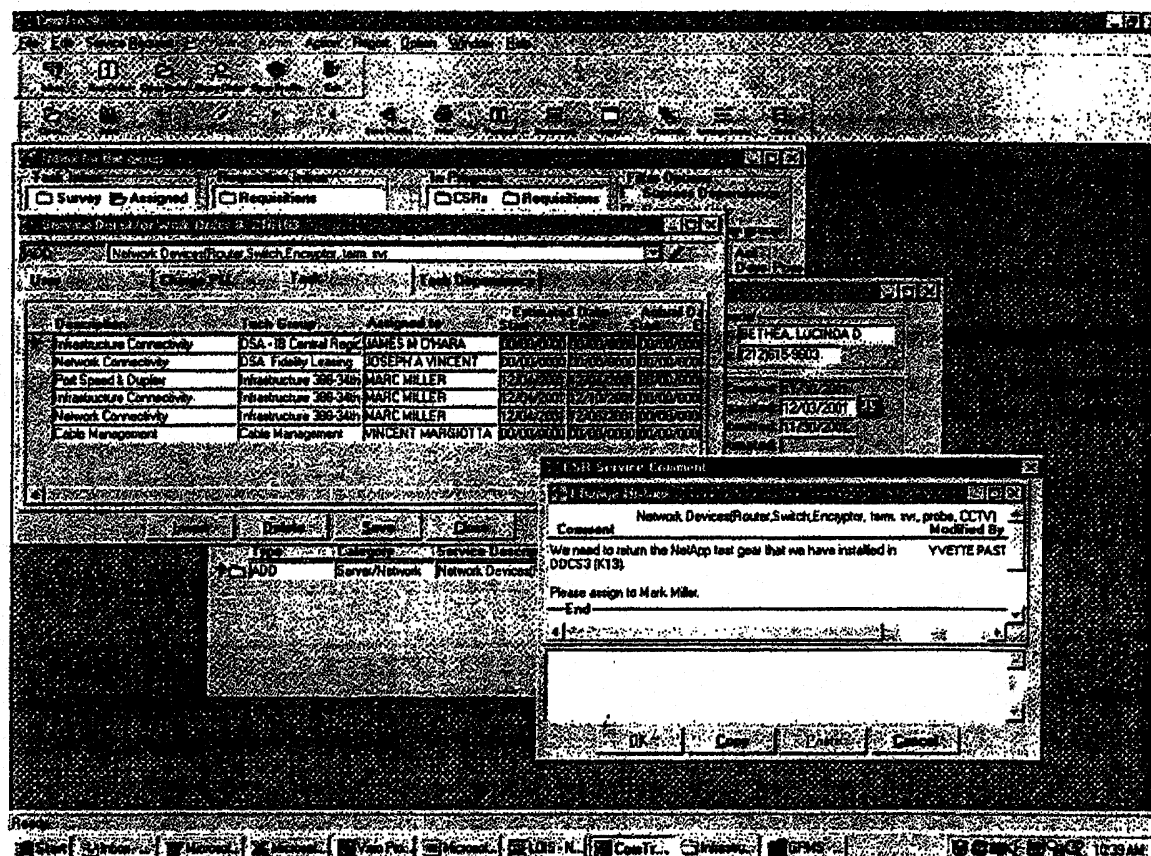
Service Requested:
Type: Server/Network
Category: Network Device/Router/Switch/Encryptor, term. svr. probe, CCTV
Service Description:

In accordance with the Citigroup Network Operating Directive, section three, issued on November 16, 2001, Infrastructure Integration maintains compliance by disabling inactive network connections whenever locations are vacated.

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By clicking on the yellow file folder, you can see all those whom have a task to complete to fulfill the request. The status of each individuals task can be seen by checking if their dates are closed out and by scrolling to the right and clicking on the pencil to view comments.

By clicking on the yellow pencil next to the service description, the user can see the detail regarding that specific task.

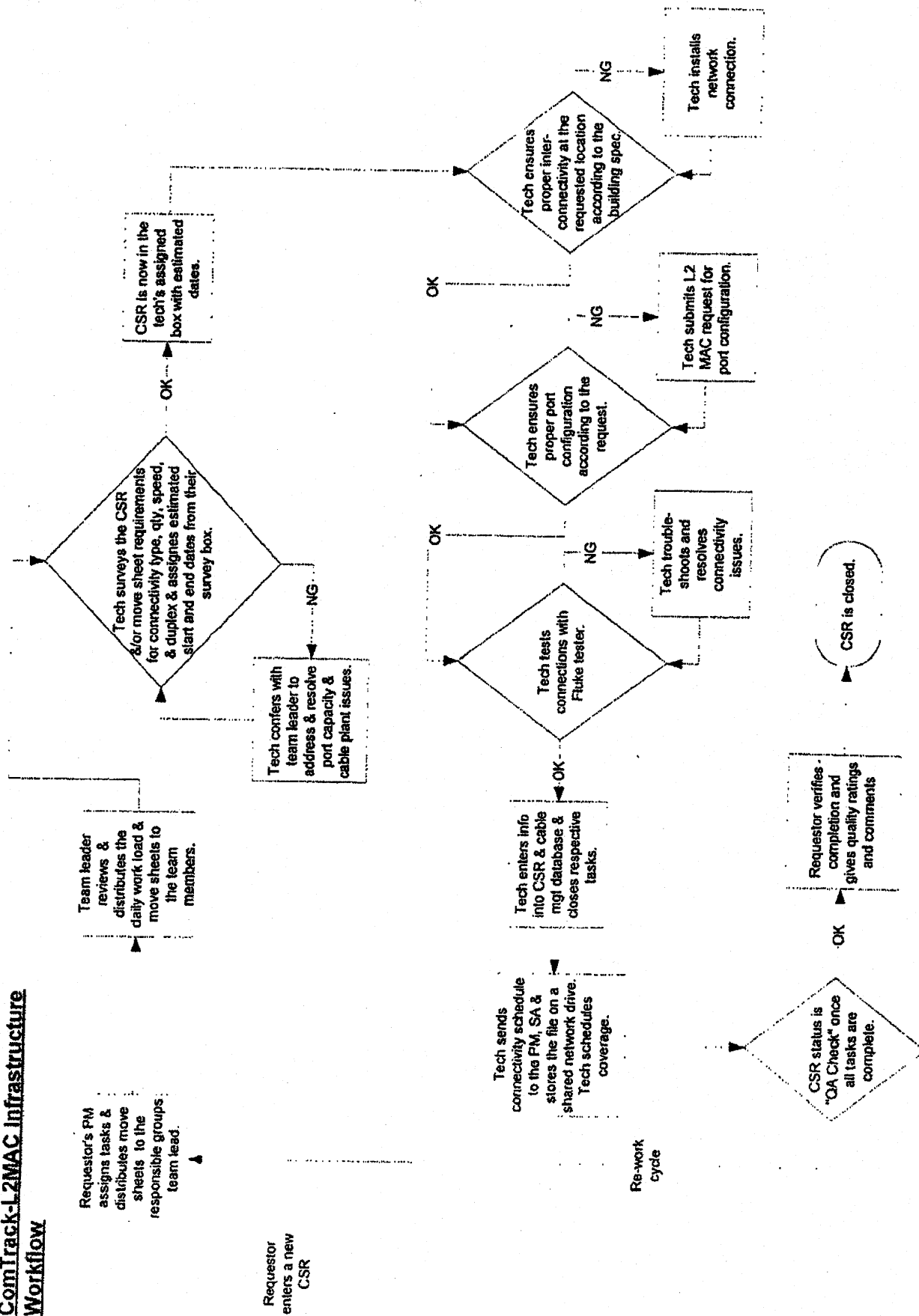


Once the user enters a comment and closes out the actual start and end dates, the CSR disappears from their box. Once all tasks are completed by all techs, the CSR is put into QA check where the requestor verifies completion and rates the work that was completed.

Reports can be run in order to provide monthly status and customer rating statistics for the group or the individual.

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ComTrack-L2MAC Infrastructure Workflow



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2.2 TAS

TAS is the Technology Asset System. It is an Intranet web-based application, which serves as an accounting and inventory tool for all devices connected to the network. TAS has a workflow queue that allows for server installations to be requested and processed across various disciplines.

Upon logging in, the user reaches the following home page indicating the number of servers in the work queue that need to be installed.

TAS Technology Asset System

User Name: **THOMAS G. SARANELLO**
 User ID: **168346**
 Group: **NA Infrastructure Integration-388G**
 Group Type: **Unknown**
 Login Date: **1/30/2003 9:54:36 AM**
 IP Address: **162.124.146.8**
 Access Level: **Read/Add/Update**

TAS News Bulletin
 Batch Processing Reschedule
 Bulk Upload (Network devices)
 NETCOOL REPORTS
 URGENT TAS CHANGES: NEW SECURITY ACCESS PROCEDURES (1/01/02)
 Applications from Mystic will be available in TAS (10/26/02)
 Release Schedule for Enhancements

Add Queue
 You have 1 servers awaiting approval.
 You have 15 servers in the work queue.

Shortcuts
 My Group's Servers
 My Group's History Logs

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TAS - NetLap

Back Forward Cancel Home Search Help Log Off

Home > Information > [INFO] INFO@WORKFLOW_SERV=11/22/2002,11/15/2002,11/18/2002,31+7818+18+18CONTACT-676,255,256OBTAINED-1ICSP-UNSP_CERT-N

CITIGROUP TAS Information Systems Division 11/22/2002

TAS info@workflow.com to go! home search citigroup

LOIS Add Wizard : Tracking #21174

[Update] [Cancel]

#Optional
#Optional If there is no default application id. Click [help](#) next to Machine Type field to determine.

Machine Type: SA and ORACLE STNCC (Oracle) No Buttons No Buttons

DD

☒ Elevation ☐ SA Approval

☐ Network Integration

☐ Infrastructure

Due Date: 11/22/2002

System Information

System Name: TLAAPP1C

Backup Type: Veritas NetBackup

Operating System: Sun Solaris 2.6

Server Model: Sun Microsystems V480 Rack Type: Rack

Add SubSystem or DLT

Document Done

Start CWK Microsoft Inbox Microsoft GED Total ConfTrack TAS Microsoft Unfiled CO Call 12:51 PM

- The group that the user belongs to has completed their task.

Queue's are group specific. In other words, each group only views what they are responsible to complete. From an Infrastructure Integration standpoint it is based on location.

Once the server is in the active work queue, there is a 10-day maximum turnaround for Infrastructure Integration and all other dependencies to be completed, at which point the SA approves the work and then TAS admin reviews the request and writes it to the database..

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The Infrastructure Integration member must check off and fill out the network integration and infrastructure portions of the request when completed as pictorially depicted below.

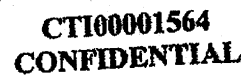
The image is a screenshot of a terminal window displaying the TASS (Terminal Access System) interface. The interface is divided into several sections. At the top, there is a header bar with the text "TASS Network" and a date/time stamp "11/15/2002 11:11:15". Below this, there is a navigation bar with tabs for "Network", "Business", "Machine", "User", "System", "Network", "Help", and "About". The "Network" tab is currently selected. The main content area is divided into two panes. The left pane shows the "Terminal Server?" configuration, with a dropdown menu set to "Yes" and a "Port" field set to "3606". The right pane shows the "Active Terminal Server" list, which contains one entry: "R3007S15" with a status of "Active". Below this, there is a section for "Add New" with a dropdown menu. The main pane displays a table of network interfaces. The table has columns for "Interface", "Description", "Protocol", "Speed", "Duplex", "IP Address", "Switch", "Card", and "State". The table contains three entries: "TLAAPPIC-1thrd", "TLAAPPIC-3rd", and "TLAAPPIC-2nd". Each entry shows a "Fast Ethernet" interface with a speed of "100 mb/sec" and a duplex of "Full". The IP addresses are "162.124.198.66", "162.124.198.221", and "162.124.200.66" respectively. The switch is "S3906GSS07V8" and the card is "S3906GSS10V38". The state of all three interfaces is "Active". Below the network configuration, there is a section for "Business Area". The "Business Area" dropdown menu is set to "Travelers". The "Machine Type" dropdown menu is set to "Application Server". Below this, there is a section for "Add Application" with a dropdown menu. The main pane displays a table of application servers. The table has columns for "Application Name", "IP Address", and "State". The table contains ten entries: "International web site", "Citi Website", "NFP Website", "Planet Website", "Tower Square Public Website", "CALC", "Caesar", "Annuity Consumer web site", and "Portal Consumer Sites". Each entry shows an IP address and a status of "Active". At the bottom of the terminal window, there is a status bar with various icons and a date/time stamp "11/15/2002 11:11:15".

The Elevation task is complete when Infrastructure Engineering properly allocates and assigns space and power for the request and updates the request with a pdf of the proposed cabinet elevation.

The Network Integration task is complete when valid network segments have been determined, and switch slot/port and terminal server connectivity have been configured and updated in the request.

The Infrastructure task is complete when the hardware is physically installed, the interconnectivity is run, tested, labelled and all cable management databases are updated.

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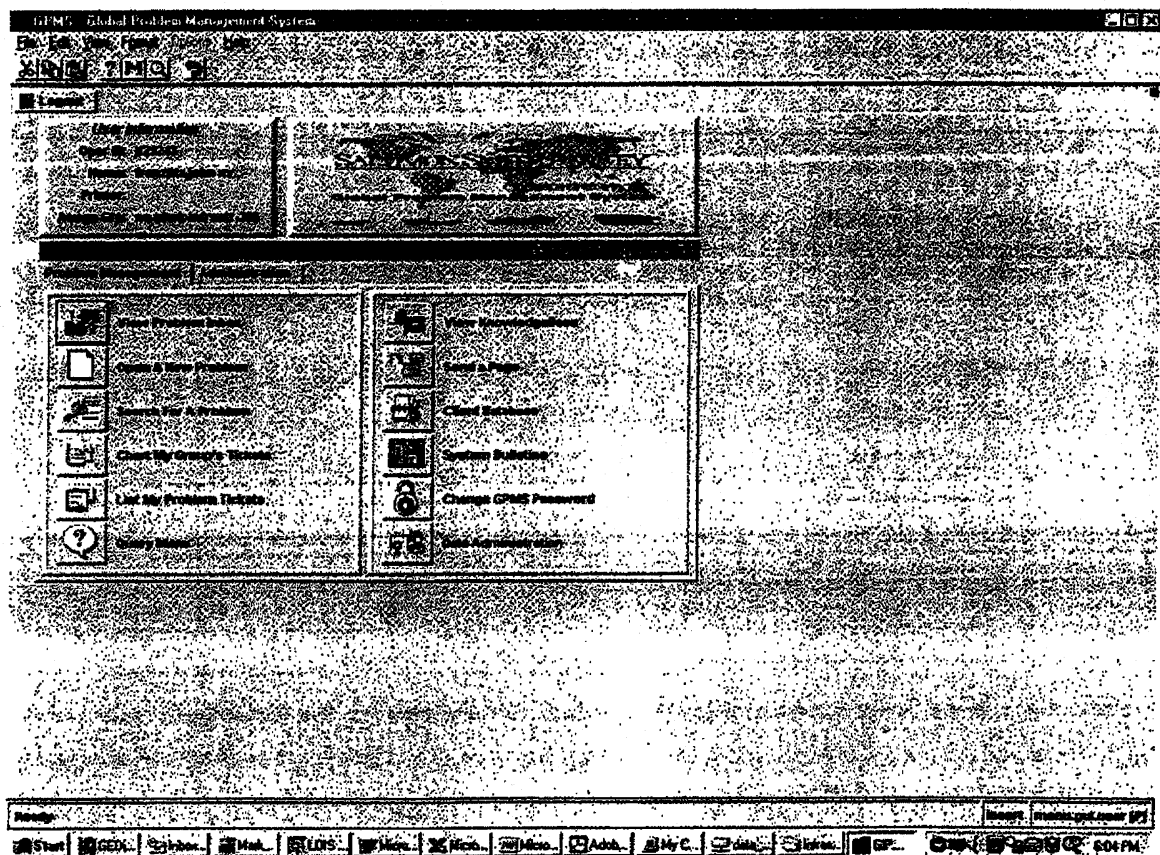


TAS Diagrams	Edit Date: 4/15/03 3:31:49 PM	
TAS Add WizardA VISIO template for creating network diagrams using the shapes in the network stencil, network.vss.		
Target DB: SQL	Rev: 1.0	Creator: j29243
Filename: TAS-AddWizard.vsd		Network Integration

2.3 GPMS

GPMS is the Global Problem Management System. The Infrastructure group uses this application to act quickly on perceived problems reported by a technology user or the corporate help desk by resolving any connectivity issues or verifying connectivity is good and forwarding the problem to the next logical support group.

Upon logging in, the user reaches the following home page:



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